# 2<sup>nd</sup> Federal Reserve District Banking Markets: Revisions Based on 2000 Census

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## II. Summary

The Banking Studies (BS) function has updated the 2<sup>nd</sup> district banking market definitions using the recently released commutation data from the 2000 Census.

The definition of the largest market in the district—the New York City Metro market composed of counties and parts of counties in New York, New Jersey, Pennsylvania, and Connecticut—barely changed. The metro market now includes *all* of Mercer County, NJ and all of Monroe County, PA.

The most notable change to upstate markets was the elimination of the market formerly known as Olean, the smallest New York state market. The counties formerly counted in that market (are parts of counties) are now counted in the Buffalo and Rochester markets. Definitions of other upstate markets changed because of changes in how split counties were divided (in accordance with changed commutation pattern), but those changes (and the resulting change in market structure—concentration etc.) were relatively minor.

Puerto Rico (PR) banking market definitions also changed slightly, due to changes in metropolitan statistical area (MSA) designations (which BS usually follows closely in defining PR banking markets). The Office of Management and Budget (OMB) changed some MSA definitions (mostly enlarged) and defined an entirely new, Guayama, MSA. Guayama does not satisfy BS criteria for designation as a market core, however, so Guayama is counted as part of the San Juan market, not a separate market. The other PR market definitions changed in accordance with the changed MSA designations. As in 1994, then, PR still has four banking markets, not five (the number of MSAs), and not fewer.

By and large, our methods for defining market closely follow the core and tier method in FRBNY (1994)<sup>2</sup>. However, we pay closer attention to township level interchange (as opposed to county) when it comes to splitting counties between markets. One innovation here is the use of newspaper circulation as a proxy for market integration, and to augment township commutation data. Our use of circulation data is limited here to the (former) Olean market, to further ensure that the counties and townships therein are indeed integrated with the Buffalo market. Not surprisingly, newspaper circulation is highly correlated with commutation, suggesting that circulation data might serve to update (or check) market definitions before the next Census.

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<sup>&</sup>lt;sup>2</sup> See Appendix D for FRBNY (1994) written by David Holdsworth.

#### III. How Banking Studies Defines Banking Markets

We follow FRBNY (1994) in treating banking markets in the 2<sup>nd</sup> district as cores, surrounded by tiers (up to six). Whenever possible, cores and tiers are whole counties and all the townships therein. However, some counties have substantial interchange toward two or more markets, with no dominant direction. The townships within these split counties are divided between the relevant markets roughly in proportion to the proportion of county resident workers commuting to each market. We elaborate below.

#### Core and Tiers

In brief, Banking Studies conceives of banking markets as a central *core* surrounded by *tiers*. The core is usually a county.<sup>3</sup> Two notable exceptions are the Metro NY-NJ-CT-PA market, wherein the core is the city of New York, which consists of five counties; and all four Puerto Rico markets, wherein the cores are MSAs.

FRBNY delineates a market core by looking at certain employment and residency ratios. Suppose a given county, G, is being considered as a market core. Let W = workers living in G; B = people both working and living in G; E = people working in G. To qualify as a market core, FRBNY looks for  $B/W \ge 0.8$  and  $E/W \ge 1.0$ . If these requirements are not perfectly met, a county might still be a core based on historical precedence and FRBNY's discretion.

Given a core, the market is created by a process of tiering, in which surrounding counties (or parts of counties) are sequentially added based on commutation. The counties adjacent to a core are candidates for tier 1, and included in tier 1 if commutation with the core meets the threshold for tier 1. Assuming at least one county meets the tier 1 criterion, the counties adjacent to tier 1 counties or the core county are considered as candidates for tier 2, and included in tier 2 if commutation with tier 1 and the core meets the threshold for tier 2. This process continues, tiering outward from the core until no counties meet the cutoff for inclusion in the market.

The commutation rate between county A and group of counties B = (number of workers commuting from A into B + number of workers commuting from B into A)/ number of workers who live in A.

The commutation cutoffs for each tier are listed in Table 1.

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<sup>&</sup>lt;sup>3</sup> For details, see David Holdsworth memo in Appendix D.

## IV. Changes to the NY-NJ-CT-PA Metropolitan (Metro) Market

The Metro market is the second district's largest market, built around the market core of New York, NY. Map 1 shows the counties included in the Metro market definition in 1994. The 2005 definition of the Metro market expanded slightly to include Monroe County, PA, and all of Mercer County, NJ, which was previously split with the Philadelphia market (Map 2, Table 2). These definitional changes had little effect on the Metro market's structure (Table 3).

## Mercer County

Mercer County, NJ was previously split between the NY-NJ metro market and the Philadelphia market, as defined by the Philadelphia FRB. Philadelphia FRB analysts find little integration between Mercer County and the Philadelphia market, so at their suggestion, we now count all of Mercer County in the Metro market. In fact, Mercer does meet FRBNY criteria for inclusion in the Metro market: interchange between Mercer County and the Metro core + tier 1 + tier 2 counties equals 28.29% (see Table 2), easily meeting the 21% cutoff for Tier 3 status.<sup>5</sup>

## Monroe County

Monroe County, PA was previously its own single-county market. Monroe has an interchange with the Metro market of 26.2%, meeting the 24% cutoff for tier 4 (see Table 5). Analysis from the Philadelphia Fed supports the inclusion of Monroe County in the Metro market.<sup>6</sup>

## Litchfield and New Haven Counties

Analysis was performed with the Federal Reserve Bank of Boston in 2003 to determine the eastern boundary of the Metro market. It was determined that portions of Litchfield and New Haven Counties will be included in the Metro market definition (see Appendix C for a full list of included townships). This boundary will not change from its 2003 placement. This is consistent with the Federal Reserve Bank of Boston's market definitions.

<sup>&</sup>lt;sup>4</sup> DiSalvo, James V. *Third District Banking Markets 2003 Revision*. Federal Reserve Bank of Philadelphia, Research Department, September 2003.

<sup>&</sup>lt;sup>5</sup> Mercer still has sufficient interchange with the Philadelphia market to qualify (by FRBNY commutation criteria) splitting, but based on Philadelphia FRB analysis (of non-commutation criteria) and their recommendation, we count all of Mercer in the Metro market. See DiSalvo (2003)

<sup>&</sup>lt;sup>6</sup> Ihid.

## V. Upstate New York Markets

Map 3 shows the new market definitions. Tables 6-31 list interchange percentages for all counties fully or partially included in the upstate New York markets, as well as the structural changes each market experienced due to changes in definition. The markets are displayed in the following order: Buffalo, Jamestown, Rochester, Elmira-Corning, Ithaca, Syracuse, Binghamton, Oneonta, Utica-Rome, Watertown, St. Lawrence, Plattsburgh, Albany.

## **VI. Split Counties**

Whenever possible, designated markets include whole counties. However, counties with substantial interchange toward more than one market, with no dominant direction, must be divided between the relevant markets. Following FRBNY (1994), counties are candidates for splitting if either 1) the difference in interchange between the county and two different markets is less than "10 or 11" percentage points (FRBNY 1994, p. 7) or 2) the county has interchange exceeding 15 percent in a second direction (even if interchange in the primary direction is at least 11 percentage points higher). Given 1) or 2), FRBNY (1994) divided counties by population in proportion to the ratio of interchange toward each direction. For example, suppose interchange from county X to markets A and B is 20% and 35%, respectively. County X fails test 1 for splitting (since the difference in interchange is greater than 11 percentage points), but County X passes test 2 for splitting (since interchange toward both markets is greater than 15%). Following FRBNY's (1994) pro rata rule for splitting, approximately 0.2/(0.2+0.35) of the population of County X would be assigned to market A, with the balance assigned to B. The actual splitting is done by assigning townships with the greatest township level interchange toward A to market A until the proportion of population in those townships roughly equals the proportion of interchange toward A. In some cases, the pro-rata rule calls for splitting differently not because the interchange proportion changed, but because the population proportions change.

The interchange percentages noted in the tables may sometimes appear inconsistent for split counties. For example, Table 2 lists Mercer County, NJ, with 28.29% interchange with the Metro market's "Core + Tier 1 + Tier 2." Table 4, however, lists Mercer County's interchange with the Metro market as considerably higher, at 48.72%. This second figure is larger because it considers interchange between Mercer County and *every* county or partial county included in the Metro market. The figure in Table 2 considers interchange between Mercer County and those counties included in a lower tier. The larger figure, including *every* Metro market county or partial county is the one used when deciding how to split Mercer County. This is in order to capture any interchange effects that might otherwise be ignored, e.g. high levels of interchange between tier 3 and tier 4 counties.

Most changes in market definitions were due to adjustments in how split counties were divided between markets.

The order in which we add counties and partial counties to a market is important because an addition or subtraction can impact the inclusion or exclusion of the next county considered. Until a definition is changed, the 1994 definition is used to make the split. For example, when considering the interchange between Orleans County (the first county considered) and the Buffalo market, we considered the 1994 definition of Buffalo. When looking at the next county, Wyoming, we consider the 2005 portion of Orleans in Buffalo and the 1994 definition of Buffalo elsewhere. We present the split counties in the order they were considered and defined.

## Orleans County

In 1994, Orleans was split between the Buffalo and Rochester markets (Map 4). The 2000 Census data confirm that Orleans is still divided between those markets, with interchange toward Buffalo of about 18.5 percent (Table 32). The proportion of interchange toward Buffalo was roughly the same as in 1990.

The three Orleans County townships counted in the Buffalo market in 1994 were Ridgeway, Yates, and Shelby. These townships' cumulative share of county population in 2000 is about 33.5 percent (Table 33), close to the 28 percent interchange ratio toward Buffalo. Interchange from these townships is heavier toward Buffalo, so we split Orleans County the same as it was in 1994.

## Wyoming County

In 1994, Wyoming County was split between the Buffalo and Rochester markets (Map 5). The 2000 Census data reveal interchange toward both markets increased, but the proportion toward Buffalo increased from 43.7 % to 51.16 % (Table 34).

To match the increased proportion of interchange toward Buffalo, we assign Attica to the Buffalo market. This reassignment increases the Buffalo market's portion of Wyoming County population to 50.04 % (Table 35), just shy of 51.16 %, Buffalo's share of Wyoming's commutation.

## Steuben County

In 1994, Steuben County was split between the Elmira-Corning and Rochester markets (Map 7). The 2000 commutation data reveal that Steuben County still has significant interchange toward both markets, with neither market dominant, so Steuben shall remain split (Table 36).

The townships Greenwood through Wayne will be included in the Rochester market; Urbana through Caton will be in the Elmira market (Table 37, Map 8).

#### Schuyler County

In 1994, Schuyler County was split between the Ithaca and Elmira-Corning markets (Map 9). County commutation data for 2000 indicate that Schuyler County remains divided between Ithaca and Elmira (Table 38).

The 2000 township commutation data confirm the bi-directional orientation of Schuyler County (Table 39). Townships Orange through Cayuta will be included in the Elmira-Corning market; Catharine and Hector will be part of the Ithaca market (Map 10).

## Cortland County

In 1994, Cortland County was divided between the Ithaca and Syracuse markets (Map 11). The 2000 county commutation data show that Cortland County remains divided between Ithaca and Syracuse. The proportion of commutation toward Ithaca increased, however, so the division is now almost equal each way (Table 40).

Splitting Cortland County to match the 50-50 commutation ratio is difficult because over half population live in Cortlandville Town and Cortland City, and commutation from those cities is divided almost equally between Ithaca and Syracuse (Table 41).

Cortland City is closer to Ithaca than to Syracuse—23 versus 39 miles—but the difference in travel time is smaller because Cortland City is connected to Syracuse via Federal highway 81, whereas the Cortland-Ithaca connection is via the smaller route 13.

FRBNY (1994) shifted Cortlandville Township to the Syracuse market based on the increased interchange toward the north revealed in the 1990 commutation data. Even though Cortland City and Cortland Township are oriented slightly more toward Ithaca, for the sake of continuity we recommend maintaining FRBNY's (1994) split of Cortland County (Map 11).

#### *Madison County*

In 1994, Madison County was split between the Syracuse and Utica-Rome markets (Map 12). The 2000 commutation data reveal increased interchange toward both markets (Table 42). Looking at township level commutation, DeRuyter through Lebanon commute more heavily toward Syracuse; this would also maintain the 1994 definition (Table 43). Madison shall be split the same as in 1994 (Map 12).

#### Susquehanna County, PA.

The 1994 market definitions had Susquehanna County divided, with the northern portion counted in the Binghamton market and the southern portion counted in the

Scranton, PA market (Map 13). The 2000 Census data reveal that Susquehanna County retains its dual market orientation, although the proportion of interchange toward the Binghamton market (Broome County specifically) has decreased to about 45 percent (Table 44). To match proportion, Susquehanna was split at Montrose township (Table 45, Map 14), with the townships of Choconut through Montrose are assigned to the Binghamton market and the other townships (Thompson-Borough City) assigned to the Scranton market.

#### Chenango County

The 1994 market definitions split Chenango County between the Binghamton and Oneonta markets (Map 15). The 2000 county commutation data indicate that Chenango remains split between these markets (Table 46). The proportion of interchange toward Binghamton declined from 47.39% to 46.03%.

Chenango is difficult to split because of the unusual interchange patterns in Norwich township (Table 47). Norwich *City* is oriented toward Binghamton, but other parts of Norwich Township are oriented toward Oneonta. Rather than splitting Norwich township, it was assigned entirely to the Oneonta market. The townships of Smithville through Pharsalia and Preston through Linklaen were assigned to the Binghamton market (Map 16). The latter townships are indeed oriented predominately toward Binghamton. With that split, the proportion of Chenango County population counted in the Binghamton market equals 40.11%, not far below the proportion of interchange toward Binghamton.

## Lewis County, NY

The 1994 market definitions had Lewis County divided between the Utica-Rome and Watertown markets (Map 17). The 2000 data show that Lewis still has substantial interchange toward both markets, with the proportion of Lewis County interchange toward Utica-Rome increasing (Table 48).

To approximate the increased proportion of interchange toward Utica-Rome, the Lewis County townships of Montague, Martinsburg, and Watson were added to the Utica-Rome market (Table 49, Map 18).

#### Franklin County

In 1994, Franklin County was divided between the St. Lawrence market and the Plattsburgh market (Map 19). The 2000 county commutation confirm the split in Franklin County (Table 50). While interchange from Franklin County toward both markets increased since 1990, the proportion of commutation toward St. Lawrence increased slightly to about 36%.

The townships Bombay through St. Regis Reservation will be included in the St.

Lawrence market; Altamont through Franklin will be included in the Plattsburgh market (Table 51, Map 20).

## VII. Other Changes

The Former Olean Market

As defined in 1994, the Olean market included parts of Cattaraugus County and Allegany County (Maps 21-22).

The 1994 Olean market and Cattaraugus County were unique in the 2<sup>nd</sup> district for two reasons. First, Olean was the only market in the district with less than a whole county as its core; the core consisted of just the southeast portion of Cattaraugus County.<sup>7</sup> The rest of Cattaraugus is divided between the Jamestown market (west) and the Buffalo market (north). Cattaraugus and Allegany were the only 2<sup>nd</sup> district counties divided among three markets in 1994, a second distinction.

The three-way division of Cattaraugus partly reflects commutation patterns prevailing in 1990 (Table 53). In 1990, interchange toward the Jamestown market (west) and toward Allegany County (east) was 7.5% and 8.1%, respectively. Interchange with the core of the Buffalo market equaled 15.6%. That particular interchange pattern made Cattaraugus marginal; it barely qualified as tier 1 of Buffalo market (cutoff = 15%), and barely *missed* splitting between the Jamestown and Buffalo markets. 8

Even though Cattaraugus County *did* qualify for tier 1 of the Buffalo market, and did *not* quite qualify for splitting, FRBNY (1994) split anyway due to a worry that 1) assigning Cattaraugus to the Buffalo market would "isolate" western Allegany County, and 2) Jamestown "is too far" from Corning (east of Olean) to divide them by just a single market boundary. "The solution," FRBNY concluded, "is to continue the existing definition of the Olean market (FRBNY 1994, p. 20).<sup>9</sup>

Based on new data and considerations, the Olean market designation will be

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<sup>&</sup>lt;sup>7</sup> Cattaraugus County as a whole does not qualify as a market core. Market cores are supposed to have an E/W and B/W ratio no lower than 1 and .8, respectively. Cattaraugus misses both criteria, and its ratios are well below the average for other NY market cores (Table 52). Otsego County, the Oneonta market core, just misses both cutoffs. Chatauqua County, the Jamestown core, and Clinton County, the Plattsburgh core, have E/W ratios just under 1.

<sup>&</sup>lt;sup>8</sup> The relevant splitting criteria here is whether the difference in interchange toward different markets is less than "10 or 11" percent. The difference between Cattaraugus interchange with the Buffalo and Jamestown markets in 1990 was 11.5 % (= 19.0% - 7.5%).

discontinued and all of Cattaraugus County will be placed in the Buffalo market. In brief, the reasons for these changes are:

- 1. Cattaraugus County is no longer marginal; it easily meets the criteria for counting in the Buffalo market and it clearly misses the cutoff for splitting.
- 2. FRBNY's (1994) concerns about counting Cattaraugus in the Buffalo market have been significantly reduced by subsequent developments.
- 3. The Olean market is considerably smaller than all other New York state markets, and population center—Olean City—is contracting.
- 4. Discontinuing the Olean market and counting all of Cattaraugus County in the Buffalo market would not adversely affect market structure in the Buffalo and Jamestown market.
- 5. Other considerations.
- 1. Increased interchange between Cattaraugus County and the Buffalo market since 1990 makes the historical Olean market construct and three-way split of Cattaraugus increasingly untenable (Table 53). Interchange between Cattaraugus and the Buffalo market core--Erie County—has increased to 18.85%, well above the 15% cutoff for tier Interchange with the entire Buffalo market —including the outer tiers—increased from 19% to 22.6%. By contrast, interchange toward the west (Jamestown market) and east (Allegany County) barely changed. The interchange toward Buffalo now exceeds interchange in other directions by 14.4%, so Cattaraugus misses the cutoff for splitting between markets other than the Buffalo market.

Olean City, the population center of Cattaraugus County, is 78 miles from Buffalo on route 16. Most other townships in the county are even closer to Buffalo (because Olean City is in the southeast corner of Cattaraugus County).

2. The concerns about folding Cattaraugus into the Buffalo market raised in FRBNY's (1994) previous analysis have been mitigated by subsequent developments. Counting Cattaraugus in the Buffalo market would no longer "isolate" Allegany County. While direct interchange between Allegany and Buffalo is relatively low, interchange via Cattaraugus County is substantial (Table 54). If Cattaraugus is counted in the Buffalo market, Allegany-Buffalo interchange increases to 19.01%, high enough to count Allegany in Tier 2 of the Buffalo market. Interchange between Allegany and Rochester equals 12.09%, however, so Allegany also qualifies for dividing between the Rochester and Buffalo markets. Either way, however, Allegany County would not be isolated.

FRBNY's (1994) other concern—that the Jamestown market "is too far" from the Elmira-Corning market to divide them by just a single market boundary—is not, in fact, a concern under new market definitions. If Cattaraugus is counted in Buffalo, and part of Allegany is counted in Rochester, the Jamestown and Elmira-Corning markets will be separated by two (Buffalo and Rochester) market boundaries.

3. The Olean market is the smallest market in New York, and its population center is shrinking. The entire market consists of just 8 institutions, 30 branches, and \$816.2 million in deposits (Table 56). By contrast, the average NY state market—excluding the Metro market—contained 14.4 institutions, 125.2 branches, and \$6.7 billion in deposits. 10 The next smallest NY market (ranked by deposits), St. Lawrence, has 25% more institutions than the Olean market, a third more offices, and 32% more deposits. Olean is also substantially smaller than the nearest neighboring markets, Jamestown and Elmira-Corning.

The Olean market is not just small, it is shrinking. The population of Olean City the population center—has declined by about 20% since 1970 (Table 57).

Small and shrinking does not, by itself, mean a population or geographic segment is not a market, of course. But if markets generally are expanding, as some evidence suggests, the contraction in the already small Olean market is pertinent.

- 4. Little impact on Jamestown and Buffalo markets. Under the 1994 definition of the Olean market, the eastern part of Cattaraugus County was counted in the Jamestown market. Eliminating the Olean market and counting all of Cattaraugus County would have little impact on the Jamestown market structure: the Jamestown market would "lose" two bank branches and the HHI would increase from 1577 to 1627 (Table 58). Buffalo market structure would barely change if that market was expanded to include Cattaraugus County.
- 5. Other evidence on integration between Cattaraugus County and the Buffalo market.

As evidence that the Olean market is, in fact, a market, FRBNY (1994) noted that the market had "two junior colleges, a University, a large hospital, and a major shopping center..." FRBNY also observed that Olean is the only "principal business center" in the two counties, according to Rand McNally's 1993 Commercial Atlas and Marketing Guide. This was still the case in Rand McNally's 2000 edition of the same volume.

Buffalo News coverage of and circulation in Cattaraugus County suggest some degree of integration between Cattaraugus County and Buffalo. The Buffalo News features stories on Cattaraugus County in its "City and Region" section, under "Western New York," and has a Cattaraugus County correspondent. 11 A Google search for stories

<sup>&</sup>lt;sup>10</sup> Table 55.

http://www.buffalonews.com/editorial/20050210/1064061.

on "Cattaraugus County" produced ten hits (separate stories) between published between 2/1/05 and 2/10/05, one story per day. The same search produced 67 articles with "Cattaraugus County" between 01/01/2004 - 07/15/2004.

The *Buffalo News* also circulates fairly widely in many Cattaraugus Townships, particularly the Sunday News (Table 59). The average circulation across townships of the Sunday News was 17.45 % (or residents). Circulation is also significantly correlated with commutation, suggesting that circulations numbers might serve to update (or check) market definitions before the 2010 Census. <sup>12</sup>

## Allegany County

The proportion of Allegany interchange toward Buffalo equals 64.71% (Table 60). To march that, we assigned the Allegany townships of Oil Springs Reservation through Caneadea to the Buffalo market and the remaining townships (Allen-Burns) in the Rochester market (Table 61, Map 23). All the former townships are in fact oriented more toward Buffalo, while the latter are oriented more toward Rochester.

#### VIII. Puerto Rico Markets

The process of defining markets in Puerto Rico differs from the rest of the Second District in two important ways. First, MSAs, rather than counties are used as the core around which a market is built. Second, municipios (county equivalents) are not split. This is based on historical precedence and the method of FRBNY.<sup>13</sup>

Three of the four banking markets in Puerto Rico experienced a large (>100) change in HHI. The change in market definitions was due mostly to expanding and/or changing MSAs. Because MSAs are relied on to create Puerto Rico's market cores, changes in the definitions of MSAs has a big impact on the market definitions.

#### A. Changes to Puert\*o Rico MSAs

Banking studies usually follows MSA designations in defining markets in Puerto Rico, so any changes in MSA definitions made by the OMB impacts FRNBY market definitions (Maps 24-25). The trend in Puerto Rico is toward larger, more integrated MSAs (Maps 26-27). In 1994, 25 municipios were not included in any MSA. Most

Without a baseline for comparison, one cannot say whether Buffalo News circulation in (and coverage of) Cattaraugus County is high or low. The data show that circulation and coverage are not zero, however. Were that so, counting Cattaraugus in the Rochester market would seem suspect.

<sup>&</sup>lt;sup>13</sup> See Appendix D for more information.

of these unattached municipios were located in the mountain range that runs from northwest Puerto Rico toward the southeast. By 2003, all but nine municipios were counted as part of an MSA. Many of the newly attached municipios are now counted as parts of pre-existing MSAs (as of 1994), or were included in the newly created Guayama MSA.

## B. Guayama: New MSA. New Market?

Based on the new census, the OMB designated the new Guayama MSA composed of the municipios of Guayama, Arroyo and Patillas. While Banking Studies tends to follow MSA designations in Puerto Rico, Guayama does *not* appear to satisfy Banking Study criteria for classification as a separate market.

The Guayama MSA misses the B/W cutoff, and barely satisfies the E/W cutoff (Table 62). Interchange between Guayama and San Juan, the nearest neighboring market, is 19.0 percent, more than enough for Guayama to be counted as part of Tier 1 in the San Juan Market, rather than its own market.

In 1990, commutation from the three municipios comprising the newly defined Guayama MSA was oriented toward the Ponce Market (Table 63). Thus, it was included in the Ponce Market. In 2000, the commutation is oriented toward the San Juan Market.

The reorientation of the Guayama MSA away from Ponce toward San Juan is mostly due to growth in the San Juan Consolidated Metropolitan Statistical Area (CMSA)<sup>15</sup>. Six additional municipios have been added to the San Juan CMSA since 1994, but only two were added to the Ponce MSA. Residents commuting to those marginal municipios are now commuting to the San Juan market, by definition.

Were the Guayama MSA designated a banking market core, it would be smaller than the other markets in Puerto Rico (Table 64). Population in the other markets ranges from 146,424 people in the Aguadilla market to 2.45 million people in the San Juan market. A Guayama market, by contrast, would be populated by only 83,570 people. A Guayama market would have fewer financial institutions than the Puerto Rico banking markets, and it would be more concentrated than all but the Aguadilla market.

In sum, the newly designated Guayama MSA does not meet the criteria for designation as a core banking market, but it does satisfy the criteria for inclusion in the San Juan market.

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<sup>&</sup>lt;sup>14</sup> OMB Bulletin Number 03-04, <a href="http://www.whitehouse.gov/omb/bulletins/b03-04.html">http://www.whitehouse.gov/omb/bulletins/b03-04.html</a>.

<sup>&</sup>lt;sup>15</sup> A CMSA combines adjacent MSAs and Micropolitan Statistical Areas into one grouping.

## C. Other Municipios Added or Deleted from Puerto Rico MSAs/Market Cores

## Aguadilla MSA/Market Core.

## Additions:

- Anasco
- Isabela
- Lares
- Rincon
- San Sebastian

## Mayaguez MSA/Market Core.

## Additions:

Lajas

## Deletions:

Anasco

## Ponce MSA/Market Core.

#### Additions:

- Coamo
- Guanica

#### San Juan CMSA/Market Core.

#### Additions:

- Aibonito
- Barranquitas
- Ciales
- Maunabo
- Orocovis
- Quebradillas

## D. Municipios not included in any MSA

These municipios that are not included in any MSA were evaluated for market inclusion based on normal tiering procedure of the FRBNY (Table 65).

Tables 66-69 show the changes in structure for Puerto Rico markets based on the new definitions.

# **Appendix A: Tables**

Table 1: Commutation Cutoffs

Tier:	Commutation With:	Commutation Cutoff (%):
1	Core	15
2	Core + Tier 1	18
3	Core + Tier 1 + Tier 2	21
4	Core + Tier 1 + Tier 2 + Tier 3	24
5	Core + Tier 1 + Tier 2 + Tier 3 + Tier 4	27

Table 2: The Metro Market

	County	Partial County	E/W (%)	B/W (%)	Inter- change with Core (%)	Interchange with Core + Tier 1 (%)	Inter- change with Core + Tier 1 + Tier 2 (%)	Interchange with Core + Tier 1 + Tier 2 + Tier 3 (%)
Core	Bronx, NY		67.68	40.69				(12)
	Kings, NY		74.08	47.90				
	New York, NY		277.50	83.80				
	Queens, NY		64.03	39.48				
	Richmond, NY		62.91	45.01				
	All 5 NYC Counties		117.64	91.55				
	as One Core							
Tier 1	Nassau, NY				46.23			
	Westchester, NY				38.60			
	Hudson, NJ				33.17			
	Rockland, NY				22.68			
	Bergen, NJ				22.29			
	Putnam, NY				16.03			
Tier 2	Passaic, NJ				6.33	49.15		
	Suffolk, NY				14.46	35.95		
	Essex, NJ				13.04	35.49		
	Union, NJ				10.58	21.74		
	Morris, NJ				7.06	20.79		
	Orange, NY				9.83	19.92		
	Middlesex, NJ				11.53	18.60		
	Fairfield, CT				8.83	18.51		
	Dutchess, NY				5.20	18.24		
Tier 3	Somerset, NJ				6.33	11.54	72.47	
	Monmouth, NJ				11.10	15.33	37.42	
	Pike, PA				9.22	13.20	33.14	
	Sussex, NJ				3.10	12.23	29.98	
	Sullivan, NY				4.93	7.60	29.65	
	Mercer, NJ				4.71	6.72	28.29	
	Hunterdon, NJ				2.86	5.40	25.71	
Tier 4	Warren, NJ				1.81	4.57	14.96	51.25
	Ocean, NJ				2.51	4.77	15.92	43.62
	Ulster, NY				3.01	5.33	20.11	39.76
	Monroe, PA				7.01	9.34	12.53	23.30
		Litchfield, CT			1.35	2.86	20.25	20.26
		New Haven, CT			0.71	1.19	20.16	20.20

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A = (commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

Table 3: Change in Metro Market Structure Due to Change in Definition

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	261	5,543	678,287,061	873
<b>Under 2005 Definitions</b>	271	5,548	678,339,926	848
Change	10	5	52,865	-25

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market. The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 4: Interchange between Mercer County, NJ and Surrounding Markets

	Interchange with Metro Market (%)	Interchange with Philadelphia Market (%)	Metro Proportion
1990	33.90	34.00	49.93
2000	48.72	34.20	58.76

Table 5: Interchange between Monroe County, PA and Metro Market

	Interchange with Metro Market
1990	20.30%
2000	26.22%

Table 6: The Buffalo Market

	County	Partial County	E/W (%)	B/W (%)	Interchange with Core (%)	Interchange with Core + Tier 1 (%)
Core	Erie, NY		105.81	94.09		
Tier 1	Niagara, NY				45.23	
	Cattaraugus, NY				18.85	
		Wyoming, NY			27.0	
Tier 2		Allegany, NY			2.09	19.14
		Orleans, NY			6.42	18.87

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A = (commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

See Section VII for more information about Cattaraugus and Allegany Counties and the former Olean market.

Table 7: Changes in Buffalo Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	20	279	21,701,844	2,145
<b>Under 2005 Definitions</b>	22	322	22,820,917	1,979
Change	2	43	1,119,073	-166

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 8: The Jamestown Market

	County	Partial County	E/W (%)	B/W (%)
Core	Chatauqua, NY		99.66	89.28

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A =(commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

Table 9: Changes in Jamestown Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	9	48	1,277,023	1,577
<b>Under 2005 Definitions</b>	8	46	1,241,574	1,627
Change	-1	-2	-35,449	50

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 10: The Rochester Market

	County	Partial County	E/W (%)	B/W (%)	Interchange with Core (%)	Interchange with Core + Tier 1 (%)	Interchange with Core + Tier 1 + Tier 2 (%)
Core	Monroe, NY		112.94	95.22			
Tier 1	Wayne, NY				59.29		
	Livingston, NY				40.83		
		Orleans, NY			39.07		
	Ontario, NY				38.23		
	Genesee, NY				24.75		
Tier 2	Seneca, NY				4.80	38.57	
	Yates, NY				5.51	35.38	
		Wyoming, NY			6.49	29.31	
Tier 3		Steuben, NY			2.62	9.62	11.46
		Allegany, NY			1.95	5.30	7.13

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A = (commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

Table 11: Changes in Rochester Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	22	311	24,617,645	2,067
<b>Under 2005 Definitions</b>	23	332	24,946,983	2,016
Change	1	21	329,338	-51

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 12: The Elmira-Corning Market

	County	Partial County	E/W (%)	B/W (%)	Interchange with Core (%)
Core	Chemung, NY		108.24	81.09	
Tier 1		Steuben, NY			16.12
		Schuyler, NY			22.65

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A = (commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

Table 13: Changes in Elmira-Corning Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	14	54	1,836,232	1,468
<b>Under 2005 Definitions</b>	11	50	1,771,743	1,605
Change	-3	-4	-64,489	137

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 14: The Ithaca Market

	County	Partial County	E/W (%)	B/W (%)	Interchange with Core (%)
Core	Tompkins, NY		120.34	91.40	
Tier 1		Cortland, NY			18.59
		Schuyler, NY			20.55

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A = (commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

Table 15: Changes in Ithaca Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	11	33	1,244,527	2,970
<b>Under 2005 Definitions</b>	11	37	1,320,683	2,791
Change	0	4	76,156	-179

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 16: The Syracuse Market

	County	Partial County	E/W (%)	B/W (%)	Interchange with Core (%)	Interchange with Core + Tier 1 (%)
Core	Onondaga, NY		116.52	94.07		
Tier 1	Oswego, NY				40.04	
	Cayuga, NY				26.67	
		Madison, NY			38.65	·
		Cortland, NY			13.45	19.05

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A = (commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

Table 17: Changes in Syracuse Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	27	208	8,580,073	965
<b>Under 2005 Definitions</b>	28	211	8,643,374	957
Change	1	3	63,301	-8

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 18: The Binghamton Market

	County	Partial County	E/W (%)	B/W (%)	Interchange with Core (%)	Interchange with Core + Tier 1 (%)
Core	Broome, NY		112.41	91.53		
Tier 1	Tioga, NY				44.94	
		Susquehanna, PA			23.03	
Tier 2		Chenango, NY			14.50	14.90

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A = (commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

Table 19: Changes in Binghamton Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	10	78	3,061,652	2,053
<b>Under 2005 Definitions</b>	10	86	3,277,661	1,932
Change	0	8	216,009	-121

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 20: The Oneonta Market

	County	Partial County	E/W (%)	B/W (%)	Interchange with Core (%)	Interchange with Core + Tier 1 (%)
Core	Otsego, NY		96.00	76.86		
Tier 1	Delaware, NY				20.21	
Tier 2		Chenango, NY			8.75	17.45

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A = (commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

Table 21: Changes in Oneonta Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	10	58	2,128,753	2,860
<b>Under 2005 Definitions</b>	10	62	2,266,036	3,081
Change	0	4	137,283	221

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 22: The Utica-Rome Market

	County	Partial County	E/W (%)	B/W (%)	Interchange with Core (%)	Interchange with Core + Tier 1 (%)
Core	Oneida, NY		107.41	88.33		
Tier 1	Herkimer, NY				41.28	
	Lewis, NY				14.21	15.57

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A = (commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

Table 23: Changes in Utica-Rome Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	16	93	4,211,413	1,187
<b>Under 2005 Definitions</b>	16	93	4,211,413	1,187
Change	0	0	0	0

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 24: The Watertown Market

	County	Partial County	E/W (%)	B/W (%)	Interchange with Core (%)
Core	Jefferson, NY		102.20	93.24	
Tier 1		Lewis, NY			20.08

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A = (commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

Table 25: Changes in Watertown Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	8	43	1,244,187	1,847
<b>Under 2005 Definitions</b>	8	45	1,298,879	1,887
Change	0	2	54,692	40

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 26: The St. Lawrence Market

	County	Partial County	E/W (%)	B/W (%)	Interchange with Core (%)
Core	St. Lawrence, NY		98.02	92.18	
Tier 1		Franklin, NY			11.80

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A = (commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

Table 27: Changes in St. Lawrence Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні	
<b>Under 1994 Definitions</b>	10	40	1,079,677	1,927	
<b>Under 2005 Definitions</b>	10	41	1,096,170	1,877	
Change	0	1	16,493	-50	

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 28: The Plattsburgh Market

	County	Partial County	E/W (%)	B/W (%)	Interchange with Core (%)	Interchange with Core + Tier 1 (%)
Core	Clinton, NY		99.39	91.38		
Tier 1	Essex, NY				29.70	
Tier 2		Franklin, NY			7.71	21.25

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A = (commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

Table 29: Changes in Plattsburgh Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні	
<b>Under 1994 Definitions</b>	10	58	1,791,545	1,378	
<b>Under 2005 Definitions</b>	10	59	1,814,677	1,386	
Change	0	1	23,132	8	
·					

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 30: The Albany Market

	County	Partial County	E/W (%)	B/W (%)	Interchange with Core (%)	Interchange with Core + Tier 1 (%)	Interchange with Core + Tier 1 + Tier 2 (%)
Core	Albany, NY		154.19	82.96			
Tier 1	Rensselaer, NY				55.25		
	Schenectady, NY				43.81		
	Saratoga, NY				29.27		
	Greene, NY				24.93		
	Schoharie, NY				17.57		
	Warren, NY				5.51	36.33	
	Montgomery, NY				11.07	31.67	
	Columbia, NY				12.61	29.38	
	Washington, NY				6.09	28.75	
	Fulton, NY				5.63	19.02	
	Hamilton, NY				0.80	5.22	25.09

Notes: E/W = total employment in county / resident workers in county.

B/W = resident workers employed in county / resident workers in county.

Interchange with A = (commutation from county to A + commutation from A to county) / (resident workers in county).

See Section VI for details on how partial counties are divided.

Table 31: Changes in Albany Market Structure Due to Changes in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні	
<b>Under 1994 Definitions</b>	23	420	20,760,124	1,246	
<b>Under 2005 Definitions</b>	23	420	20,760,124	1,246	
Change	0	0	0	0	

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 32: Interchange between Orleans County and Surrounding Markets

	Interchange with Buffalo Market	Interchange with Rochester Market	Buffalo Proportion*
1990	17.2%	41.3%	29.40%
2000	18.46%	47.13%	28.14%

<sup>\*</sup>Buffalo Proportion = Interchange with Buffalo / (Interchange with Buffalo + Interchange with Rochester)

Table 33: Interchange between Orleans County Townships and Surrounding Markets

Township	Population	Percentage of County Population	Cumulative Percentage of County Population	Resident Workers	Interchange with Buffalo Market	Interchange with Rochester Market	Buffalo Proportion *
Ridgeway	6,886	15.59%	15.59%	3,152	37.88%	15.26%	71.28%
Yates	2,510	5.68%	21.27%	1,034	31.43%	17.60%	64.10%
Shelby	5,420	12.27%	33.54%	2,282	31.90%	21.78%	59.43%
Albion	8,042	18.21%	51.75%	2,539	33.87%	58.84%	36.53%
Carlton	2,960	6.70%	58.45%	1,374	5.82%	41.19%	12.38%
Barre	2,124	4.81%	63.26%	989	5.76%	44.99%	11.35%
Gaines	3,740	8.47%	71.73%	1,628	3.81%	36.61%	9.42%
Kendal	2,838	6.43%	78.15%	1,273	2.36%	79.18%	2.89%
Clarendon	3,392	7.68%	85.83%	1,525	1.44%	79.41%	1.78%
Murray	6,259	14.17%	100.00%	2,442	0.37%	86.61%	0.42%
TOTAL POP	  ULATION: 44	  -,171					

<sup>\*</sup>Buffalo Proportion = Interchange with Buffalo / (Interchange with Buffalo + Interchange with Rochester)

Table 34: Interchange between Wyoming County and Surrounding Markets

	Interchange with Buffalo Market	Interchange with Rochester Market	Buffalo Proportion*	
1990	21.5%	27.7%	43.70%	
2000	34.38%	32.82%	51.16%	

<sup>\*</sup>Buffalo Proportion = Interchange with Buffalo / (Interchange with Buffalo + Interchange with Rochester)

Table 35: Interchange between Wyoming County Townships and Surrounding Markets

Township	Population	Percentage of County Population	Cumulative Percentage of County Population	Resident Workers	Interchange with Buffalo	Interchange with Rochester	Buffalo Proportion *
Java	2,222	5.12%	5.12%	1094	48.45%	5.85%	89.23%
Arcade	4,184	9.64%	14.75%	1925	111.48%	17.87%	86.18%
Sheldon	2,561	5.90%	20.65%	1260	48.89%	9.84%	83.24%
Bennington	3,349	7.71%	28.36%	1577	61.95%	18.64%	76.87%
Eagle	1,194	2.75%	31.11%	505	34.26%	14.26%	70.61%
Wethersfield	891	2.05%	33.16%	380	17.89%	12.89%	58.12%
Orangeville	1,301	3.00%	36.16%	632	24.68%	19.78%	55.52%
Attica	6,028	13.88%	50.04%	1809	52.29%	56.05%	48.27%
Pike	1,086	2.50%	52.54%	525	10.86%	18.86%	36.54%
Genesee Falls	460	1.06%	53.60%	179	13.41%	40.78%	24.74%
Warsaw	5,423	12.49%	66.09%	2444	12.07%	36.74%	24.73%
Gainesville	2,333	5.37%	71.46%	1089	8.63%	30.95%	21.81%
Middlebury	1,508	3.47%	74.94%	710	12.82%	60.85%	17.40%
Castile	2,873	6.62%	81.55%	1327	3.92%	40.77%	8.77%
Perry	6,654	15.32%	96.88%	2306	4.34%	48.87%	8.15%
Covington	1,357	3.13%	100.00%	703	3.27%	66.43%	4.69%

<sup>\*</sup>Buffalo Proportion = Interchange with Buffalo / (Interchange with Buffalo + Interchange with Rochester)

Table 36: Interchange between Steuben County and Surrounding Markets

	Interchange with Rochester Market	Interchange with Elmira-Corning Market	Rochester Proportion*
1990	10.20%	11.70%	46.58%
2000	11.46%	18.74%	37.95%

<sup>\*</sup>Rochester Proportion = Interchange with Rochester / (Interchange with Rochester + Interchange with Elmira)

Table 37: Interchange between Steuben County Townships and Surrounding Markets

Township	Population	Percentage of County Population	Cumulative Percentage of County Population	Resident Workers	Interchange with Rochester Market	Interchange with Elmira- Corning Market	Rochester Proportion*
Greenwood	849	0.86%	0.86%	325	6.77%	0.00%	100.00%
Wayland	4,314	4.37%	5.23%	1,999	68.28%	1.25%	98.20%
Cohocton	2,626	2.66%	7.89%	1,141	37.60%	0.88%	97.72%
Fremont	964	0.98%	8.87%	471	12.95%	0.42%	96.83%
Pulteney	1,405	1.42%	10.29%	644	29.50%	1.24%	95.96%
Dansville	1,977	2.00%	12.29%	821	51.77%	2.56%	95.29%
Prattsburgh	2,064	2.09%	14.38%	828	47.58%	2.66%	94.71%
Wheeler	1,263	1.28%	15.66%	567	11.46%	1.23%	90.28%
Avoca	2,314	2.34%	18.01%	953	8.50%	1.57%	84.37%
Canisteo	3,583	3.63%	21.63%	1,592	6.41%	1.32%	82.93%
Hornellsville:							
Hornell City	9,019	9.14%	30.77%	3,757	14.00%	3.01%	82.32%
Hornellsville Township	4,042	4.09%	34.86%	1,701	11.64%	3.59%	76.45%
Hartsville	585	0.59%	35.46%	280	7.86%	2.14%	78.57%
Howard	1,430	1.45%	36.91%	658	6.84%	2.43%	73.77%
West Union	399	0.40%	37.31%	199	2.51%	1.01%	71.43%
Wayne	1,165	1.18%	38.49%	509	27.11%	12.18%	69.00%
Urbana	2,546	2.58%	41.07%	1,073	18.27%	11.00%	62.42%
Cameron	1,034	1.05%	42.12%	414	6.04%	6.76%	47.17%
Jasper	1,270	1.29%	43.40%	513	2.14%	3.12%	40.74%
Bath	12,097	12.25%	55.66%	5,016	5.96%	11.46%	34.21%
Bradford	763	0.77%	56.43%	334	4.19%	10.78%	28.00%
Thurston	1,309	1.33%	57.75%	561	3.21%	9.09%	26.09%
Addison	2,640	2.67%	60.43%	1,154	3.73%	14.21%	20.77%
Rathbone	1,080	1.09%	61.52%	467	1.71%	7.92%	17.78%
Troupsburg	1,126	1.14%	62.66%	446	0.90%	4.93%	15.38%
Corning:	Í						
Corning City	10,842	10.98%	73.64%	5,039	3.10%	57.37%	5.12%
Corning							
Township	6,426	6.51%	80.15%	2,933	1.36%	45.11%	2.93%
Tuscarora	1,400	1.42%	81.57%	554	0.36%	9.39%	3.70%
Erwin	7,227	7.32%	88.89%	3,153	1.46%	41.74%	3.38%
Hornby	1,742	1.76%	90.66%	777	0.77%	22.78%	3.28%
Woodhull	1,524	1.54%	92.20%	642	0.31%	11.53%	2.63%
Lindley	1,913	1.94%	94.14%	825	0.24%	18.42%	1.30%
Campbell	3,691	3.74%	97.88%	1,746	0.06%	18.50%	0.31%
Caton	2,097	2.12%	100.00%	1,015	0.00%	32.71%	0.00%
TOTAL POPU	LATION: 98,7	26					

<sup>\*</sup>Rochester Proportion = Interchange with Rochester / (Interchange with Rochester + Interchange with Elmira)

Table 38: Interchange between Schuyler County, NY and Surrounding Markets

	Interchange with Elmira-Corning Market	Interchange with Ithaca Market	Elmira Proportion <sup>*</sup>
1990	32.00%	21.70%	59.59%
2000	36.38%	20.57%	63.88%

<sup>\*</sup>Elmira Proportion = Interchange with Elmira / (Interchange with Elmira + Interchange with Ithaca)

Table 39: Interchange between Schuyler County Townships and Surrounding Markets

Township	Population	Percent of County Population	Cumulative Percent of County Population	Resident Workers	Interchange with Elmira- Corning Market	Interchange with Ithaca Market	Elmira Proportion*
Orange	1,752	9.11%	9.11%	574	78.57%	1.57%	98.04%
Tyrone	1,714	8.92%	18.03%	672	36.01%	1.93%	94.90%
Dix	4,197	21.83%	39.86%	1735	52.85%	7.20%	88.00%
Reading	1,786	9.29%	49.15%	766	30.03%	7.70%	79.58%
Montour	2,446	12.72%	61.88%	1076	45.82%	14.41%	76.08%
Cayuta	545	2.83%	64.71%	219	55.25%	37.90%	59.31%
Catharine	1,930	10.04%	74.75%	907	31.86%	25.03%	56.01%
Hector	4,854	25.25%	100.00%	2413	12.39%	43.47%	22.18%
TOTAL PO	PULATION:	19,224					

<sup>\*</sup>Elmira Proportion = Interchange with Elmira / (Interchange with Elmira + Interchange with Ithaca)

Table 40: Interchange between Cortland County, NY and Surrounding Markets

	Interchange with Ithaca Market	Interchange with Syracuse Market	Ithaca Proportion*
1990	14.90%	17.10%	46.6%
2000	18.64%	19.05%	49.46%

<sup>\*</sup>Ithaca Proportion = Interchange with Ithaca / (Interchange with Ithaca + Interchange with Syracuse)

Table 41: Interchange between Cortland County Townships and Surrounding Markets

Township	Population	Percent of County Population	Cumulative Percent of County Population	•	Resident Workers	Interchange with Ithaca Market	Interchange with Syracuse Market	Ithaca Proportion*
Harford	920	1.89%	1.89%		444	62.61%	2.70%	95.86%
Lapeer	686	1.41%	3.30%		365	16.71%	3.56%	82.43%
Virgil	2,287	4.71%	8.01%		1186	30.69%	8.26%	78.79%
Willet	1,011	2.08%	10.09%		446	6.73%	2.69%	71.43%
Freetown	789	1.62%	11.71%		361	8.86%	4.16%	68.09%
Marathon	2,189	4.50%	16.22%		986	8.92%	4.87%	64.71%
Cortlandville:								
Cortland City	18,740	38.56%	54.78%		7801	22.34%	18.34%	54.91%
Cortlandville								
Town	7,919	16.29%	71.07%		3683	27.80%	23.98%	53.70%
Cincinnatus	1,051	2.16%	73.24%		473	4.44%	6.13%	42.00%
Solon	1,108	2.28%	75.52%		538	4.46%	7.81%	36.36%
Homer	6,363	13.09%	88.61%		3246	10.17%	18.82%	35.07%
Scott	1,193	2.45%	91.06%		586	8.02%	15.02%	34.81%
Taylor	500	1.03%	92.09%		228	2.19%	13.60%	13.89%
Preble	1,582	3.26%	95.35%		777	6.95%	63.06%	9.93%
Truxton	1,225	2.52%	97.87%		594	2.53%	34.51%	6.82%
Cuyler	1,036	2.13%	100.00%		426	2.58%	49.30%	4.98%
TOTAL POPULA	ATION: 48,599		_					

<sup>\*</sup>Ithaca Proportion = Interchange with Ithaca / (Interchange with Ithaca + Interchange with Syracuse)

Table 42: Interchange between Madison County and Surrounding Markets

	Interchange with Syracuse Market	Interchange with Utica-Rome Market	Syracuse Proportion*
1990	37.3%	22.80%	62.06%
2000	41.05%	24.60%	62.53%

<sup>\*</sup>Syracuse Proportion = Interchange with Syracuse / (Interchange with Syracuse + Interchange with Utica)

Table 43: Interchange between Madison County Townships and Surrounding Markets

Township	Population	Percentage of County Population	Cumulative Percentage of County Population	Resident Workers	Interchange with Syracuse	Interchange with Utica- Rome	Syracuse Proportion
DeRuyter	1,532	2.21%	2.21%	643	56.30%	2.33%	96.02%
Cazenovia	6,481	9.33%	11.54%	3170	57.51%	3.38%	94.46%
Sullivan	14,991	21.59%	33.13%	7320	77.35%	5.68%	93.16%
Fenner	1,680	2.42%	35.55%	898	41.20%	3.34%	92.50%
Georgetown	946	1.36%	36.91%	368	34.51%	3.53%	90.71%
Nelson	1,964	2.83%	39.74%	998	53.01%	5.91%	89.97%
Smithfield	1,205	1.74%	41.47%	521	19.58%	6.53%	75.00%
Eaton	4,826	6.95%	48.42%	1956	32.62%	15.75%	67.44%
Lenox	8,665	12.48%	60.90%	3915	40.92%	26.97%	60.27%
Lincoln	1,818	2.62%	63.52%	876	30.48%	22.37%	57.67%
Lebanon	1,329	1.91%	65.43%	630	7.62%	9.52%	44.44%
Hamilton	5,733	8.26%	73.69%	2431	5.84%	16.58%	26.06%
Stockbridge	2,080	3.00%	76.68%	963	12.25%	35.51%	25.65%
Oneida	10,987	15.82%	92.51%	4795	24.30%	78.87%	23.55%
Madison	2,801	4.03%	96.54%	1329	8.35%	32.05%	20.67%
Brookfield	2,403	3.46%	100.00%	1126	4.00%	54.26%	6.86%

<sup>\*</sup>Syracuse Proportion = Interchange with Syracuse / (Interchange with Syracuse + Interchange with Utica)

Table 44: Interchange between Susquehanna County, PA and Surrounding Markets

	Interchange with Binghamton Market	Interchange with Scranton Market	Binghamton Proportion*
1990	28.30%	23.50%	54.63%
2000	24.90%	30.51%	44.94%

<sup>\*</sup>Binghamton Proportion = Interchange with Binghamton / (Interchange with Binghamton+ Interchange with Scranton)

Table 45: Interchange between Susquehanna County Townships and Surrounding Markets

Table 45: Int		I					
			Cumulative	<b>1</b>	Interchange	Interchange	D. 1
Township/ Borough	Pop-	County	Percent of	Resident	with	with	Binghamton
1	ulation	Pop-	County	Workers	Binghamton	Scranton	Proportion*
		ulation	Population		Market	Market	
Choconut township	797	1.89%	1.89%	370	68.65%	0.54%	99.22%
Apolacon township	507	1.20%	3.09%	214	70.56%	1.40%	98.05%
Silver Lake township	1,729	4.09%	7.18%	716	76.96%	2.37%	97.01%
Liberty township	1,266	3.00%	10.18%	582	56.87%	3.44%	94.30%
Little Meadows							
borough	290	0.69%	10.86%	139	94.24%	5.76%	94.24%
Great Bend township	1,890	4.47%	15.34%	765	56.86%	4.58%	92.55%
Oakland borough	622	1.47%	16.81%	258	36.05%	3.49%	91.18%
Franklin township	938	2.22%	19.03%	380	42.11%	4.47%	90.40%
Harmony township	558	1.32%	20.35%	219	42.47%	5.02%	89.42%
Friendsville borough	91	0.22%	20.57%	56	78.57%	10.71%	88.00%
Hallstead borough	1,216	2.88%	23.45%	414	95.65%	13.29%	87.80%
Great Bend borough	700	1.66%	25.11%	296	69.26%	9.80%	87.61%
Forest Lake township	1,194	2.83%	27.93%	541	44.92%	6.84%	86.79%
Oakland township	550	1.30%	29.23%	186	33.87%	6.45%	84.00%
Lanesboro borough	588	1.39%	30.63%	207	29.95%	11.11%	72.94%
New Milford township	1,859	4.40%	35.03%	774	32.04%	11.89%	72.94%
New Milford borough	878	2.08%	37.11%	280	51.79%	23.57%	68.72%
Susquehanna Depot							
borough	1,690	4.00%	41.11%	399	56.89%	27.82%	67.16%
Middletown township	340	0.80%	41.91%	110	29.09%	14.55%	66.67%
Bridgewater township	2,668	6.32%	48.23%	1077	17.55%	14.39%	54.94%
Jessup township	564	1.34%	49.56%	254	18.90%	16.93%	52.75%
Jackson township	788	1.87%	51.43%	317	18.61%	17.35%	51.75%
Montrose borough	1,664	3.94%	55.37%	289	48.44%	70.24%	40.82%
Thompson township	440	1.04%	56.41%	133	13.53%	27.07%	33.33%
Ararat township	531	1.26%	57.67%	200	12.50%	30.50%	29.07%
Rush township	1,290	3.05%	60.72%	448	12.95%	35.27%	26.85%
Harford township	1,301	3.08%	63.80%	416	15.63%	62.74%	19.94%
Thompson borough	299	0.71%	64.51%	104	7.69%	33.65%	18.60%
Brooklyn township	889	2.10%	66.62%	322	6.83%	40.68%	14.38%
Dimock township	1,398	3.31%	69.93%	551	7.08%	44.65%	13.68%
Gibson township	1,129	2.67%	72.60%	472	5.72%	36.86%	13.43%
Hop Bottom borough	333	0.79%	73.39%	142	9.15%	78.87%	10.40%
Union Dale borough	368	0.87%	74.26%	156	7.05%	87.18%	7.48%
Lenox township	1,832	4.34%	78.60%	829	1.93%	60.19%	3.11%
Auburn township	1,816	4.30%	82.89%	660	2.12%	71.97%	2.86%
Clifford township	2,381	5.64%	88.53%	943	2.23%	80.06%	2.71%
Herrick township	599	1.42%	89.95%	272	1.47%	59.93%	2.40%
Lathrop township	835	1.98%	91.93%	346	1.45%	65.32%	2.16%
Springville township	1,555	3.68%	95.61%	557	1.08%	62.84%	1.69%
Forest City borough	1,855	4.39%	100.00%	495	0.00%	173.33%	0.00%
i orest City borough	1,033	+.3₹70	100.0070	473	0.0070	173.3370	0.00%

<sup>\*</sup>Binghamton Proportion = Interchange with Binghamton / (Interchange with Binghamton+ Interchange with Scranton)

Table 46: Interchange between Chenango County and Surrounding Markets

	Interchange with Binghamton Market	Interchange with Oneonta Market	Binghamton Proportion*
1990	13.60%	15.10%	47.39%
2000	14.90%	17.47%	46.03%

<sup>\*</sup>Binghamton Proportion = Interchange with Binghamton / (Interchange with Binghamton+ Interchange with Oneonta)

Table 47: Interchange between Chenango County Townships and Surrounding Markets

Township	Population	Percent of County Population	Cumulative Percent of County Population	Resident Workers	Interchange with Binghamton	Interchange with Oneonta	Binghamton Proportion*
Smithville	1,347	2.62%	2.62%	542	37.68%	2.03%	94.89%
Pitcher	848	1.65%	4.27%	349	8.14%	0.57%	93.43%
Greene	5,729	11.15%	15.42%	2768	85.12%	6.79%	92.61%
German	378	0.74%	16.15%	162	22.38%	1.85%	92.36%
McDonough	870	1.69%	17.84%	375	14.38%	3.20%	81.79%
Coventry	1,589	3.09%	20.94%	690	33.50%	12.46%	72.88%
Otselic	1,001	1.95%	22.88%	417	8.16%	3.12%	72.36%
Afton	2,977	5.79%	28.67%	1244	56.50%	28.46%	66.51%
Pharsalia	542	1.05%	29.73%	217	6.38%	3.23%	66.43%
Norwich city (in Norwich							
Township)	7,355	14.31%	44.04%	2903	22.35%	14.67%	60.36%
Preston	928	1.81%	45.84%	442	3.99%	2.94%	57.56%
Oxford	3,992	7.77%	53.61%	1628	13.26%	11.55%	53.44%
Lincklaen	416	0.81%	54.42%	181	0.00%	0.00%	
Norwich	3,836	7.46%	61.88%	1829	10.71%	13.07%	45.05%
Plymouth	2,049	3.99%	65.87%	779	2.00%	5.01%	28.57%
Smyrna	1,418	2.76%	68.63%	604	0.40%	1.16%	25.70%
Sherburne	3,979	7.74%	76.37%	1733	3.19%	11.14%	22.26%
Bainbridge	3,401	6.62%	82.98%	1504	14.57%	55.85%	20.69%
North Norwich	1,966	3.82%	86.81%	924	1.71%	6.82%	20.08%
Guilford	3,046	5.93%	92.74%	1343	7.82%	40.43%	16.21%
New Berlin	2,803	5.45%	98.19%	1189	1.43%	49.45%	2.80%
Columbus	931	1.81%	100.00%	403	0.00%	16.63%	0.00%
TOTAL POPUL	L ATION: 51,40	<u> </u>					

<sup>\*</sup>Binghamton Proportion = Interchange with Binghamton / (Interchange with Binghamton+ Interchange with Oneonta)

Table 48: Interchange between Lewis County and Surrounding Markets

	Utica-Rome	Watertown	Utica-Rome
	Market	Market	Proportion*
1990	12.0%	20.4%	37.04%
2000	15.57%	20.09%	43.66%

<sup>\*</sup>Utica Proportion = Interchange with Utica / (Interchange with Utica + Interchange with Watertown)

Table 49: Interchange between Lewis County Townships and Surrounding Markets

Township	Population	Percent of County Population	Cumulative Percent of County Population	Resident Workers	Interchange with Utica- Rome	Interchange with Watertown	Utica-Rome Proportion*
Lewis	857	3.18%	3.18%	410	80.24%	0.00%	100.00%
Osceola	265	0.98%	4.16%	112	53.57%	0.00%	100.00%
Leyden	1,792	6.65%	10.82%	751	50.87%	1.33%	97.45%
Lyonsdale	1,273	4.72%	15.54%	549	45.72%	3.83%	92.28%
West Turin	1,674	6.21%	21.75%	700	34.71%	4.57%	88.36%
Turin	793	2.94%	24.70%	363	22.59%	8.82%	71.93%
Greig	1,365	5.07%	29.76%	535	13.27%	5.23%	71.72%
Montague	108	0.40%	30.16%	39	25.64%	12.82%	66.67%
Martinsburg	1,249	4.64%	34.80%	556	8.27%	13.13%	38.66%
Watson	1,987	7.37%	42.17%	899	6.67%	11.68%	36.36%
Lowville	4,548	16.88%	59.05%	1767	11.32%	25.01%	31.15%
New							
Bremen	2,722	10.10%	69.15%	1150	2.43%	14.43%	14.43%
Harrisburg	423	1.57%	70.72%	205	3.41%	20.49%	14.29%
Pinckney	319	1.18%	71.91%	154	3.25%	50.65%	6.02%
Croghan	3,161	11.73%	83.64%	1518	1.05%	21.61%	4.65%
Denmark	2,747	10.20%	93.84%	1310	1.53%	55.42%	2.68%
Diana	1,661	6.16%	100.00%	636	0.79%	39.78%	1.94%
TOTAL POPU	JLATION: 26,	,944					

<sup>\*</sup>Utica Proportion = Interchange with Utica / (Interchange with Utica + Interchange with Watertown)

Table 50: Interchange between Franklin County, NY and Surrounding Markets

	St. Lawrence Market	Plattsburgh Market	St. Lawrence Proportion*
1990	9.10%	17.60%	34.08%
2000	11.80%	21.25%	35.70%

<sup>\*</sup>St. Lawrence Proportion = Interchange with St. Lawrence / (Interchange with St. Lawrence + Interchange with Plattsburgh)

Table 51: Interchange between Franklin County Townships and Surrounding Markets

Township	Population	Percentage of County Population	Cumulative Percentage of County Population	Resident Workers	Interchange with St. Lawrence	Interchange with Plattsburgh	St. Lawrence Proportion *
Bombay	1,192	2.33%	2.33%	454	100.22%	3.74%	96.40%
Brandon	542	1.06%	3.39%	219	11.42%	0.46%	96.15%
Fort Covington	1,645	3.22%	6.61%	646	28.95%	4.02%	87.79%
Moira	2,857	5.59%	12.20%	1,123	21.10%	3.83%	84.64%
Dickinson	739	1.45%	13.64%	300	22.33%	4.33%	83.75%
Waverly	1,118	2.19%	15.83%	376	31.38%	7.98%	79.73%
Bangor	2,147	4.20%	20.03%	926	8.86%	4.00%	68.91%
Westville	1,823	3.57%	23.59%	753	9.30%	4.25%	68.63%
Constable	1,428	2.79%	26.38%	606	7.59%	4.79%	61.33%
St. Regis							
Reservation	2,699	5.28%	31.66%	1,119	11.17%	13.76%	44.80%
Altamont	6,137	12.00%	43.66%	2,736	8.55%	11.73%	42.16%
Malone	14,981	29.30%	72.96%	4,350	12.80%	19.40%	39.76%
Burke	1,359	2.66%	75.62%	604	4.97%	8.28%	37.50%
Bellmont	1,423	2.78%	78.40%	623	3.05%	10.11%	23.17%
Chateaugay	2,036	3.98%	82.38%	771	3.24%	32.81%	8.99%
Santa Clara	395	0.77%	83.16%	184	1.09%	21.74%	4.76%
Harrietstown	5,575	10.90%	94.06%	2,786	1.40%	62.53%	2.19%
Brighton	1,682	3.29%	97.35%	494	0.81%	46.36%	1.72%
Duane	159	0.31%	97.66%	63	0.00%	0.00%	0.00%
Franklin	1,197	2.34%	100.00%	540	0.00%	47.41%	0.00%
TOTAL POPULAT	TON: 51,134						·

<sup>\*</sup>St. Lawrence Proportion = Interchange with St. Lawrence / (Interchange with St. Lawrence + Interchange with Plattsburgh)

Table 52: E/W and B/W Ratios for Cattaraugus County and all NY Markets Cores

	E/W	B/W
1990	96.90%	76.70%
2000	91.26%	71.15%
All NY markets (2000)	109.47%	88.29%

Table 53: Interchange between Cattaraugus County and Surrounding Areas

	Interchange	Interchange wi	th 1994 Buffalo	Interchange with Allegany	
	with	Ma	rket	County	
	Jamestown	With Core	With Entire	With Whole	With Western
	Market	(Erie County)	Market	County	Part
1990	7.50%	15.60%	19.00%	8.10%	
2000	8.16%	18.85%	22.60%	8.49%	7.36%

Table 54: Interchange between Allegany County and Surrounding Areas

	Interchange with Elmira- Corning Market	Interchange with Rochester Market	Interchange with 1994 Olean Market Core (Eastern Cattaraugus)	Interchange with Buffalo Market (Excluding Cattaraugus)	Interchange with Buffalo Market (Including Cattaraugus)	Buffalo Proportion, Cattaraugus included
1990	10.20%	9.00%	13.80%	2.50%		
2000	1.65%	12.09%	13.95%	4.75%	19.01%	61.16%

Table 55: Olean Market Structure\*

Institution	Туре	Number of Offices	Total Deposits (\$000)	Market Share (%)	нні
COMMUNITY BANK SYSTEM, INC.	Bank	14	349,495	43	1,833
FINANCIAL INSTITUTIONS, INC.	Bank	5	175,698	22	463
STEUBEN TRUST CORPORATION	Bank	3	105,654	13	168
C.C.BANCORP, INC.	Bank	3	69,080	8	72
KEYCORP	Bank	1	68,383	8	70
NORTHWEST BANCORP INC. (MHC)	Thrift	1	20,184	2	6
ALLIED IRISH BANKS, P.L.C.	Bank	2	16,641	2	4
BANK OF CATTARAUGUS	Bank	1	11,084	1	2
TOTALS		30	816,219	100	2,618

Notes: Includes 16 townships in Allegany County, New York: Alma, Amity, Angelica, Belfast, Bolivar, Clarksville, Cuba, Friendship, Genesee, Hew Hudson, Scio, Ward, Wellsville, West Almond, Willing, Wirt; Cattaraugus Village in the New Albion township; the Oil Springs Reservation; 15 municipalities in Cattaraugus County, New York: Alleghany, Carrollton, Ellicottville, Franklinville, Great Valley, Hindsdale, Humphrey, Ischua, Little Valley, Lyndon, Mansfield, Olean, Portville, Red House, and Salamanca.

<sup>\*</sup>Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

Table 56: Olean Market Size and Structure Compared to other NY Markets \*\*

	Institutions	Offices	Deposits	
New York Markets	(#)	(#)	(\$000)	HHI
NY-NJ metro market	261	5543	678,287,061	873
Rochester	22	311	24,617,645	2,067
Buffalo	20	279	21,701,844	2,145
Albany	23	420	20,760,124	1,246
Syracuse	27	208	8,580,073	965
Utica-Rome	16	93	4,211,413	1,187
Binghamton	10	78	3,061,652	2,053
Oneonta	10	58	2,128,753	2,860
Elmira-Corning	14	54	1,836,232	1,468
Plattsburgh	10	58	1,791,545	1,378
Jamestown	9	48	1,277,023	1,577
Ithaca	11	33	1,244,527	2,970
Watertown	8	43	1,244,187	1,847
St. Lawrence	10	40	1,079,677	1,927
Olean	8	30	816,219	2,618
Average (excluding metro market)	14.14	125.21	6739351.00	1879.14

<sup>\*\*</sup> Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

Table 57: Olean City Population

Year	Population	
2000	15,347	
1990	16,946	
1980	18,207	
1970	19,169	

Table 58: Assigning Cattaraugus County to Buffalo Market Would Hardly Affect Jamestown Market Structure

Institution	Туре	Old Number of Offices	New Number of Offices	Old Total Deposits in Market (\$000s)	New Total Deposits in Market (\$000s)	Old Market Share (%)	New Market Share (%)	Old HHI	New HHI
HSBC HOLDINGS PLC	Bank	7	7	253,023	253,023	19.81	20.38	393	415
ALLIED IRISH BANKS, P.L.C.	Bank	10	10	213,866	213,866	16.75	17.23	280	297
COMMUNITY BANK SYSTEM, INC.	Bank	13	12	210,506	195,875	16.48	15.78	272	249
LAKE SHORE SAVINGS AND LOAN									
ASSOCIATION	Thrift	5	5	198,230	198,230	15.52	15.97	241	255
KEYCORP	Bank	5	5	189,664	189,664	14.85	15.28	221	233
NORTHWEST BANCORP INC. (MHC)	Thrift	5	5	163,514	163,514	12.80	13.17	164	173
EVANS BANCORP, INC.	Bank	1	1	25,927	25,927	2.03	2.09	4	4
C.C.BANCORP, INC.	Bank	1	0	20,818	0	1.63	0.00	3	0
CHARTER ONE FINANCIAL, INC.	Bank	1	1	1,475	1,475	0.12	0.12	0	0
TOTALS		48	46	1,277,023	1,241,574	100	100	1,577	1,627

Table 59: Circulation of *Buffalo News* in Cattaraugus County Townships

Township	Interchange with Buffalo (%)	Weekday News Circulation (% of Residents)	Sunday News Circulation (% of Residents)
Allegany	3.38	8.17	12.78
Ashford	125.10	24.03	28.58
Carrollton	4.11	7.86	10.25
Coldspring	4.21	9.71	16.48
Conewango	3.86	7.34	11.28
Dayton	31.95	20.91	32.12
East Otto	51.19	26.51	33.33
Ellicottville	23.14	23.53	33.54
Farmersville	41.56	10.80	16.38
Franklinville	27.60	17.59	28.00
Freedom	55.40	10.87	16.97
Great Valley	7.07	14.43	24.46
Hinsdale	3.63	12.53	15.13
Humphrey	4.24	7.74	10.87
Ischua	2.20	8.87	12.49
Leon	16.90	8.73	14.15
Little Valley	11.27	10.98	17.89
Lyndon	22.67	9.84	14.29
Machias	47.47	14.01	19.09
Mansfield	12.88	14.83	24.15
Napoli	6.21	8.30	12.12
New Albion	23.40	9.49	13.84
Olean	3.77	13.47	15.82
Otto	40.40	9.49	13.84
Perrysburg	66.97	25.01	38.31
Persia	90.07	23.66	35.74
Portville	1.69	11.81	14.14
Randolph	2.18	5.43	9.02
Salamanca	6.88	11.95	20.40
South Valley	8.20	9.33	15.64
Yorkshire	83.27	16.26	22.08
Average	43.32	12.22	17.43
Correlation with commutation	1.00	0.68*	0.60*

<sup>\*</sup>Significantly different from zero with more than 99 percent confidence level

Table 60: Allegany County Interchange with Buffalo and Rochester Markets

	Interchange with Buffalo Market	Interchange with Rochester Market	<b>Buffalo Proportion</b>
1990	2.5%*	9.0%	21.74%
2000	19.05%**	10.39%	64.71%

<sup>\*</sup>Definition of Buffalo market that existed in 1990, i.e. Erie County and Niagara County.

Table 61: Allegany Township Interchange with Buffalo and Rochester Markets

		•	Cumulative		Interchange	Interchange	
		Percentage	Percentage	Resident	with	with	Buffalo
Townships	Population	of County	of County	Workers	Buffalo	Rochester	Proportion Proportion
		Population	Population	workers	Market	Market	Proportion
0.1 0 .			Population		Market	Market	
Oil Springs		0.020/	0.020/	_	100.000/	0.000/	100.000/
Reservation	9	0.02%	0.02%	7	100.00%	0.00%	100.00%
Wirt	1,215	2.43%	2.45%	507	38.46%	0.00%	100.00%
Clarksville	1,146	2.30%	4.75%	459	58.17%	0.87%	98.52%
Cuba	3,392	6.79%	11.54%	1469	59.43%	2.65%	95.72%
Genesee	1,803	3.61%	15.15%	831	64.98%	3.25%	95.24%
Bolivar	2,223	4.45%	19.60%	881	28.38%	1.48%	95.06%
New Hudson	736	1.47%	21.08%	278	37.41%	2.52%	93.69%
Rushford	1,259	2.52%	23.60%	529	45.75%	4.73%	90.64%
Friendship	1,927	3.86%	27.46%	734	26.70%	5.18%	83.76%
Scio	1,914	3.83%	31.29%	795	8.55%	1.76%	82.93%
Centerville	762	1.53%	32.82%	280	45.36%	11.79%	79.38%
Amity	2,245	4.50%	37.32%	882	13.83%	3.74%	78.71%
Alma	847	1.70%	39.01%	346	8.96%	2.60%	77.50%
Ward	390	0.78%	39.79%	158	5.70%	1.90%	75.00%
Wellsville	7,678	15.38%	55.17%	3131	9.04%	3.55%	71.83%
Belfast	1,714	3.43%	58.61%	691	17.80%	7.81%	69.49%
Willing	1,371	2.75%	61.35%	597	1.68%	0.84%	66.67%
Caneadea	2,694	5.40%	66.75%	1291	8.37%	8.21%	50.47%
Allen	462	0.93%	67.67%	165	21.82%	22.42%	49.32%
Independence	1,074	2.15%	69.82%	448	2.90%	3.13%	48.15%
Angelica	1,411	2.83%	72.65%	609	7.72%	9.69%	44.34%
West Almond	353	0.71%	73.36%	145	9.66%	12.41%	43.75%
Hume	1,987	3.98%	77.34%	800	18.13%	29.13%	38.36%
Alfred	5,140	10.30%	87.63%	2296	5.49%	17.03%	24.37%
Andover	1,945	3.90%	91.53%	859	2.56%	8.03%	24.18%
Birdsall	268	0.54%	92.06%	87	5.75%	27.59%	17.24%
Granger	577	1.16%	93.22%	223	5.83%	39.01%	13.00%
Grove	533	1.07%	94.29%	240	3.75%	81.67%	4.39%
Almond	1,604	3.21%	97.50%	748	1.34%	33.16%	3.88%
Burns	1,248	2.50%	100.00%	525	1.52%	54.29%	2.73%
	1,210	2.2370	100.0070	223	1.0270	225 70	2.,370
ТО	TAL POPULA	TION: 49,927					
			ı			1	

<sup>\*\*</sup>Newest definition of Buffalo market, i.e. Erie, Niagara, and Cattaraugus Counties and parts of Orleans and Wyoming Counties as assigned above.

Table 62: Interchange between Guayama MSA and other Markets

MSA	B/W	E/W	Closest (C)MSA	Interchange with Closest (C)MSA
Guayama	0.629	1.012	San Juan	19.0%

B = number of workers who both live and work in given county

W = number of workers who live in that county. (Can work anywhere.)

E = number of workers who work in the county. (Can live anywhere.)

Table 63: Interchange between Guayama MSA and other Puerto Rico Markets

Municipio	1990 Market	Interchange with San Juan Market			ge with Ponce arket
		1990	2000	1990	2000
Arroyo	Ponce	21.6%	13.8%	51.4%	4.4%
Guayama	Ponce	10.8%	18.5%	24.3%	14.5%
Patillas	Ponce	14.7%	25.4%	24.4%	2.7%

Table 64: Comparing Puerto Rico Banking Markets and Guayama MSA

	Aguadilla Market	Mayaguez Market	Ponce Market	San Juan Market	Guayama MSA
Total Population	146,424	253,347	361,094	2,450,292	83,570
Per Capita Income, 1999	\$6,378	\$7,730	\$6,530	\$9,140	\$6,644
Median Age	31.7	33.9	30.2	32.5	30.8**
Number of Financial Institutions*	7	11	11	11	5
HHI*	3,238	2,440	1,952	1,507	2,855

Source: American FactFinder, US Census: www.census.gov.

<sup>\*</sup>Source: SNL Datasource, as of September 1, 2004.

<sup>\*\*</sup>This is an average of the medians of the three component municipios.

Table 65: Puerto Rico Municipios Not Included in Any (C)MSA

For these municipios, the interchange with the market to which they are assigned is highlighted.

Municipio	Interchange with San Juan Market	Interchange with Aguadilla Market	Interchange with Mayaguez Market	Interchange with Ponce Market
Adjuntas	13.78%****	8.87%	1.65%	17.46%
Culebra°	6.5%*	0%	0%**	0%***
Jayuya	17.2%*	0%	0.8%**	8.0%***
Las Marias	3.7%*	20.6%	36.5%**	1.7%***
Maricao	1.5%	4.9%	46.6%	13.1%
Salinas	51.1%*	0.8%	0.2%**	29.8%***
Santa Isabel	13.2%	0%	0.6%	60.4%
Utuado	27.3%	5.0%	0.1%	1.5%
Vieques°	5.4%*	0%	0.7%**	0.6%***

<sup>\*</sup>Interchange number includes Utuado in the San Juan Market.

Table 66: Changes in Aguadilla Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	7	28	849,139	3,059
<b>Under 2005 Definitions</b>	7	35	1,038,564	3,238
Change	0	7	189,425	179

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

<sup>\*\*</sup>Interchange number includes Maricao in the Mayaguez Market.

<sup>\*\*\*</sup>Interchange number includes Santa Isabel in the Ponce Market.

<sup>\*\*\*\*</sup> Interchange number includes Utuado and Jayuya in the San Juan Market.

<sup>°</sup>Although Culebra and Vieques fail to meet the interchange cutoff, they have been placed in the San Juan Market for historical consistency and lack of a better alternative. See David G. Holdsworth, *Definitions of Banking Markets in Puerto Rico*, Federal Reserve Bank of New York, Banking Studies Department, February 13, 1995.

Table 67: Changes in Mayaguez Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	11	50	1,738,121	2,655
<b>Under 2005 Definitions</b>	11	46	1,632,197	2,542
Change	0	-4	-105924	-113

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 68: Changes in Ponce Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	11	64	2,128,628	2,269
<b>Under 2005 Definitions</b>	12	54	1,837,065	2,026
Change	1	-10	-291563	-243

Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

Table 69: Changes in San Juan Market Structure Due to Change in Definitions

	Number of Institutions	Number of Branches	Deposits (\$000)	нні
<b>Under 1994 Definitions</b>	11	406	35,547,391	1,521
<b>Under 2005 Definitions</b>	12	413	35,755,453	1,524
Change	1	7	208,062	3

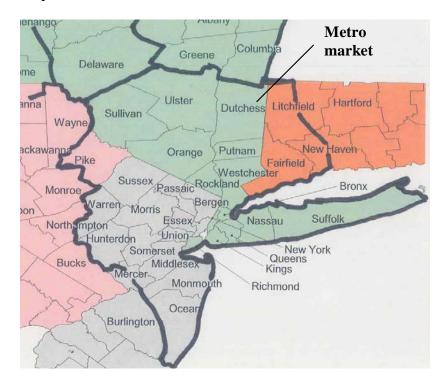
Notes: Deposits as of June 30, 2003. Deposit ownership as of September 3, 2004. Thrift deposits weighted 100%.

HHI is the sum of squared deposits held by each organization in the market.

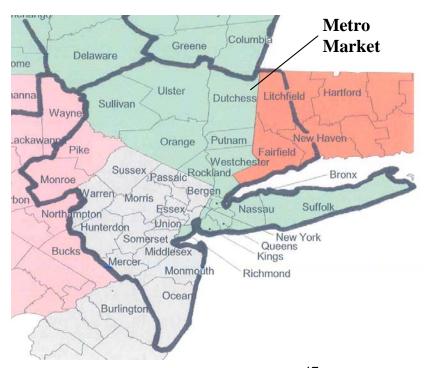
The data show what the market's HHI would be on September 3, 2004 if the 1994 market definitions were used compared to the 2005 market definitions. The change in HHI is due entirely to the different definitions of the market.

#### **Appendix B: Maps**

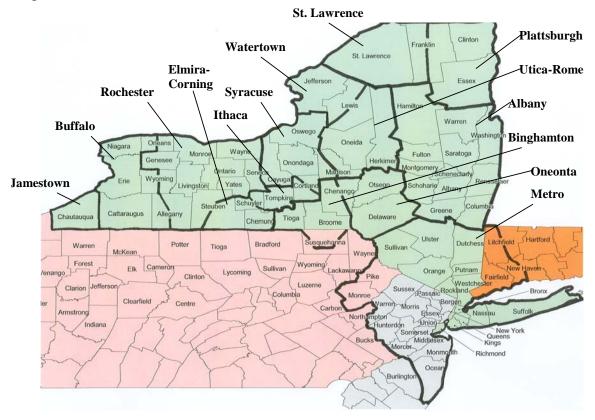
Map 1: 1994 Metro Market



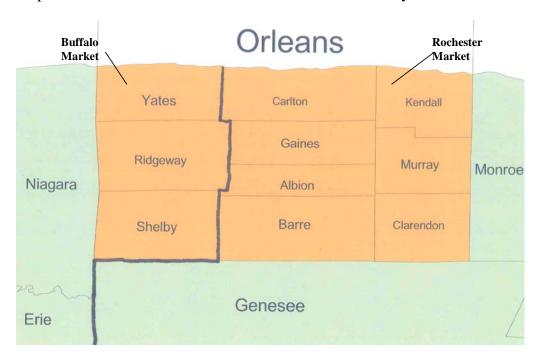
Map 2: 2005 Metro Market



Map 3: 2005 Market Boundaries in the New York Area



Map 4: 1994 and 2005 Market Boundaries in Orleans County NY



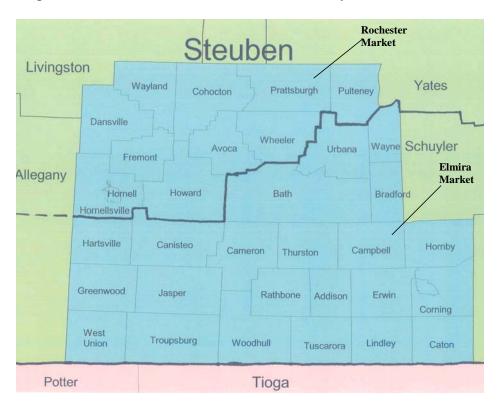
Map 5: 1994 Market Boundaries in Wyoming County



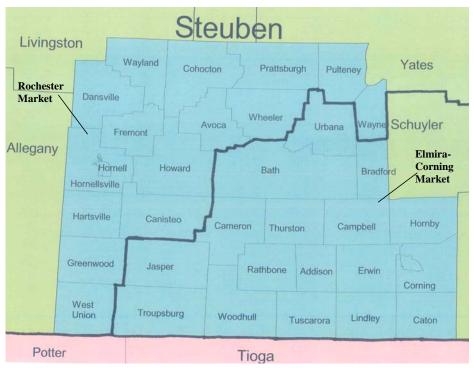
Map 6: 2005 Market Boundaries in Wyoming County



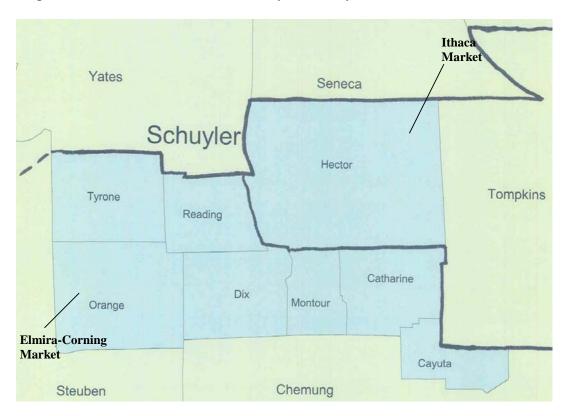
Map 7: 1994 Market Boundaries in Steuben County, NY



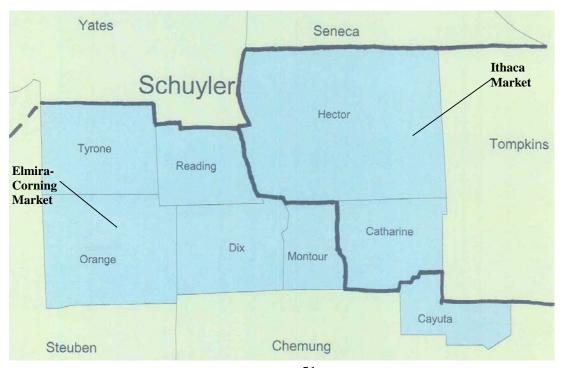
Map 8: 2005 Market Boundaries in Steuben County



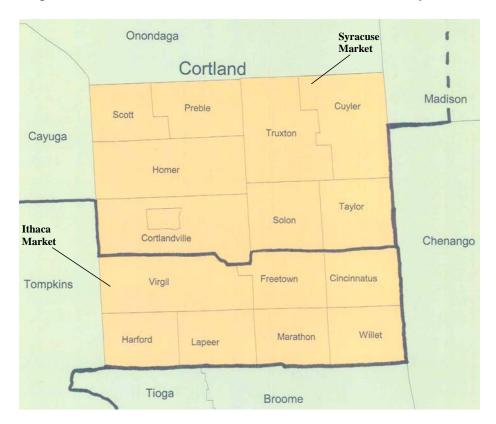
Map 9: 1994 Market Boundaries in Schuyler County, NY



Map 10: 2005 Market Boundaries in Schuyler County, NY



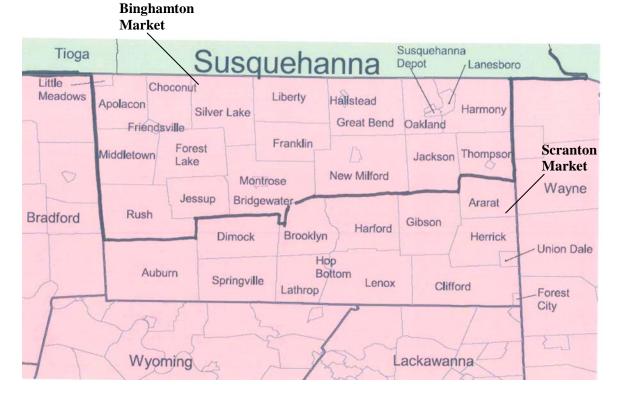
Map 11: 1994 and 2005 Market Boundaries in Cortland County, NY



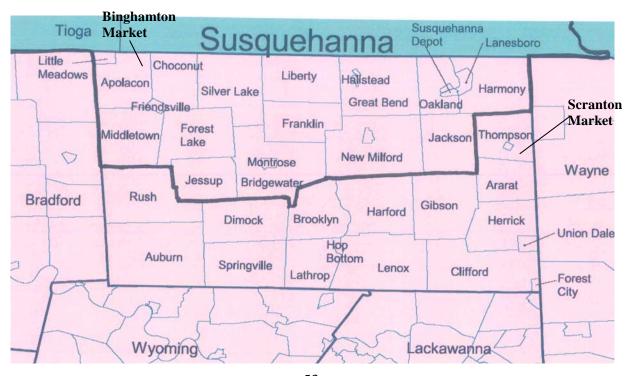
Map 12: 1994 and 2005 Market Boundaries in Madison County, NY



Map 13: 1994 Market Boundaries in Susquehanna County, PA



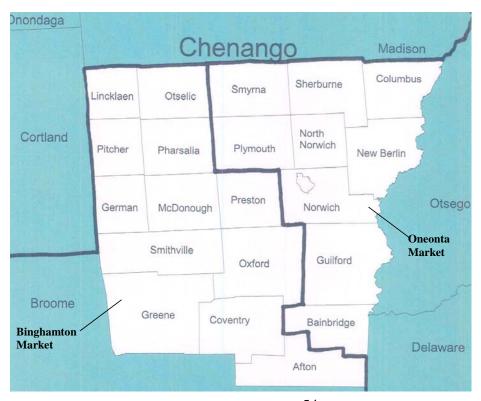
Map 14: 2005 Market Boundaries in Susquehanna County, PA



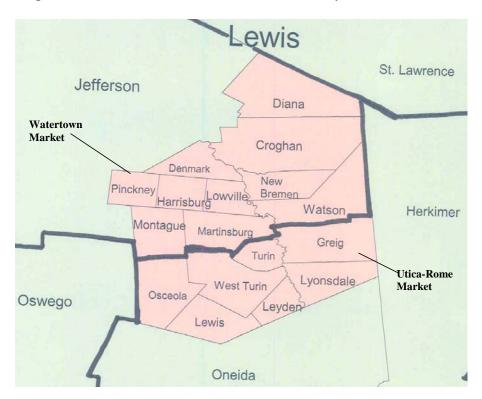
Map 15: 1994 Market Boundaries in Chenango County



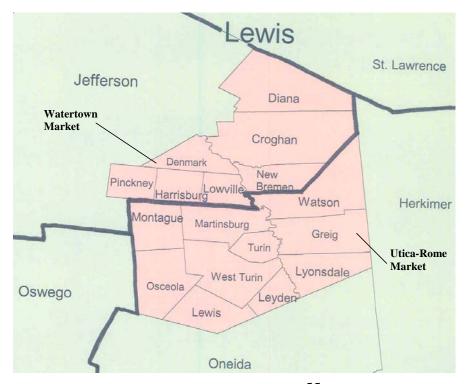
Map 16: 2005 Market Boundaries in Chenango County



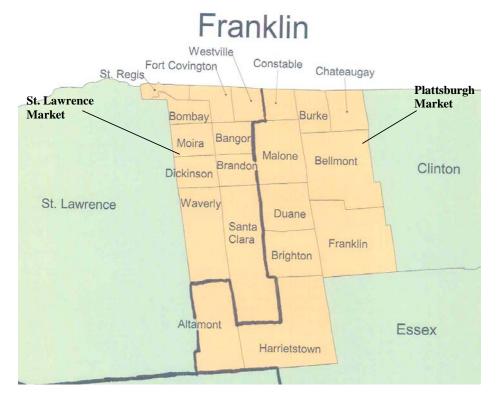
Map 17: 1994 Market Boundaries in Lewis County



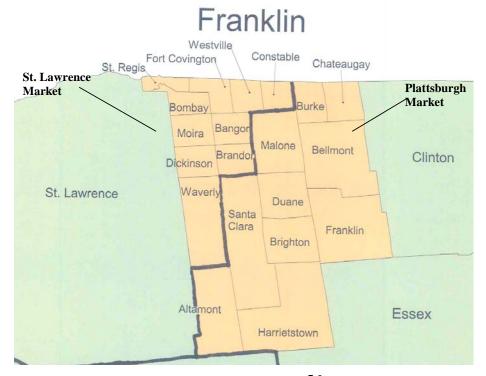
Map 18: 2005 Market Boundaries in Lewis County



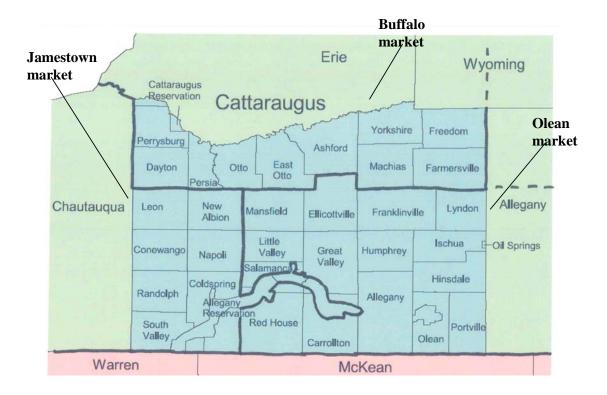
Map 19: Market Boundaries in Franklin County, NY, 1994



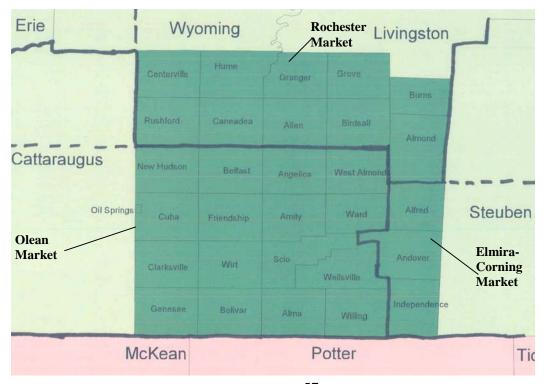
Map 20: 2005 Market Boundaries in Franklin County, NY



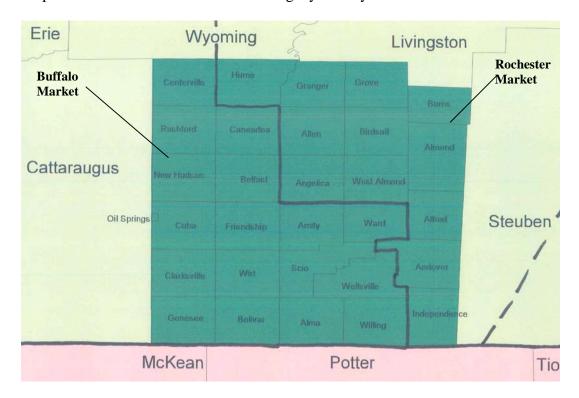
Map 21: 1994 Market Boundaries in Cattaraugus County



Map 22: 1994 Market Boundaries in Allegany County



Map 23: 2005 Market Boundaries in Allegany County



Map 24: 1994 Market Boundaries in Puerto Rico



Map 25: 2005 Market Boundaries in Puerto Rico



Map 26: 1994 MSAs in Puerto Rico



Map 27: 2005 MSAs in Puerto Rico



# **Appendix C: Second District Banking Market Definitions**

New York Area Markets

**Metropolitan NY-NJ-PA-CT Market.** 

Full Counties:	Bergen NJ, Bronx NY, Dutchess NY, Essex NJ, Fairfield CT, Kings
	NY, Hudson NJ, Hunterdon NJ, Mercer NJ, Middlesex NJ, Monmouth
	NJ, Monroe PA, Morris NJ, Nassau NY, New York NY, Ocean NJ,
	Orange NY, Passaic NJ, Pike PA, Putnam NY, Queens NY, Richmond
	NY, Rockland NY, Somerset NJ, Suffolk NY, Sullivan NY, Sussex NJ,
	Ulster NY, Union NJ, Warren NJ, Westchester NY.
Split Counties:	Litchfield CT:
	Townships: Bridgewater, Canaan, Kent, New Milford, North
	Canaan, Roxbury, Sharon, Warren.
	Cities: Cornwall Bridge, Falls Village, Lakeville, Marble Dale,
	New Preston, Salisbury, Washington Depot.
	New Haven CT:
	Townships: Ansonia, Beacon Falls, Derby, Milford, Oxford,
	Seymour.

#### Albany

Full Counties:	Albany NY, Columbia NY, Fulton NY, Greene NY, Hamilton NY,
	Montgomery NY, Rensseler NY, Saratoga NY, Schenectady NY,
	Schoharie NY, Warren NY, Washington NY.

Binghamton

Full Counties:	Broome NY, Tioga NY.
Split County:	Chenango NY:
	Townships: Afton, Coventry, German, Greene, Lincklaen,
	McDonough, Otselic, Oxford, Pharsalia, Pitcher,
	Preston, Smithville.
	Susquehanna, PA:
	Townships: Apolacon, Bridgewater, Choconut, Franklin, Forest
	Lake, Friendsville Borough, Great Bend, Great Bend
	Borough, Hallstead Borough, Harmony, Jackson, Jessup,
	Lanesboro Borough, Liberty, Little Meadows Borough,
	Middletown, Montrose Borough, New Milford, New
	Milford Borough, Oakland, Oakland Borough, Silver
	Lake, Susquehanna Depot Borough.

# Buffalo

Full Counties:	Cattaraugus NY, Erie NY, Niagara NY.
Split Counties:	Allegany NY:
	Townships: Alma, Amity, Belfast, Bolivar, Caneadea,
	Centerville, Clarksville, Cuba, Friendship, Genesee, New
	Hudson, Rushford, Scio, Ward, Wellsville, Willing, Wirt.
	Orleans NY:
	Townships: Ridgeway, Shelby, Yates.
	Wyoming NY:
	Townships: Arcade, Attica, Bennington, Eagle, Java,
	Orangeville, Sheldon, Wethersfield.

**Elmira-Corning** 

Full County:	Chemung NY.
Split Counties:	Schuyler NY:
	Townships: Cayuta, Dix, Montour, Orange, Reading, Tyrone.
	Steuben NY:
	Townships: Addison, Bath, Bradford, Cameron, Campbell,
	Caton, Corning, Erwin, Hornby, Jasper, Lindley,
	Rathbone, Thurston, Troupsburg, Tuscarora, Urbana,
	Woodhull.

# Ithaca

Full County:	Tompkins NY.
Split Counties:	Cortland NY:
	Townships: Cincinnatus, Freetown, Harford, Lapeer, Marathon,
	Virgil, Willet.
	Schuyler NY:
	Townships: Catharine, Hector.

#### Jamestown

0 0000000000000000000000000000000000000	
Full County:	Chautaugua NY.

# Oneonta

Full Counties:	Delaware NY, Otsego NY.
Split County:	Chenango NY:
	Townships: Bainbridge, Columbus, Guilford, New Berlin,
	North Norwich, Norwich, Plymouth, Sherburne,
	Smyrna.

Plattsburgh

Full Counties:	Clinton NY, Essex NY.
Split County:	Franklin NY:
	Townships: Altamont, Bellmont, Brighton, Burke,
	Chateauguay, Duane, Franklin, Harrietstown, Malone,
	Santa Clara.

#### Rochester

Full Counties:	Genesee NY, Livingston NY, Monroe NY, Ontario NY, Seneca NY,
	Wayne NY, Yates NY.
Split Counties:	Allegany NY:
	Townships: Alfred, Allen, Almond, Andover, Angelica, Birdsall,
	Burns, Granger, Grove, Hume, Independence, West
	Almond.
	Orleans NY:
	Townships: Albion, Barre, Carlton, Clarendon, Gaines, Kendall,
	Murray.
	Steuben NY:
	Townships: Avoca, Canisteo, Cohocton, Dansville, Fremont,
	Greenwood, Hartsville, Hornellsville, Howard,
	Prattsburgh, Pulteney, Wayland, Wayne, West Union,
	Wheeler.
	Wyoming NY:
	Townships: Castile, Covington, Gainesville, Genesee Falls,
	Middlebury, Perry, Pike, Warsaw.

# St. Lawrence

Full County:	St. Lawrence NY.
Split County:	Franklin NY:
	Townships: Bangor, Bombay, Brandon, Constable,
	Dickinson, Fort Covington, Moira, Waverly,
	Westville.
	Native American Reservation: St. Regis Reservation.

# Syracuse

Full Counties	Cayuga NY, Onondaga NY, Oswego NY.
Split Counties:	Cortland NY:
	Townships: Cortlandville, Cuyler, Homer, Preble, Scott, Solon,
	Taylor, Truxton.
	Madison NY:
	Townships: Cazenovia, DeRuyter, Eaton, Fenner, Georgetown,
	Lebanon, Lenox, Lincoln, Nelson, Smithfield,
	Sullivan.

# **Utica-Rome**

Full Counties:	Herkimer NY, Oneida, NY.
Split Counties:	Lewis NY:
	Townships: Greig, Lewis, Leyden, Lyonsdale, Martinsburg,
	Montague, Osceola, Turin, Watson, West Turin.
	Madison NY:
	Townships: Brookfield, Hamilton, Madison, Oneida,
	Stockbridge.

# Watertown

Full County:	Jefferson NY.
Split County:	Lewis NY:
	Townships: Croghan, Denmark, Diana, Harrisburg, Lowville,
	New Bremen, Pinckney.

# Puerto Rico Markets

# Aguadilla

Municipios	Aguada, Aguadilla, Anasco, Isabela, Lares, Moca, Rincon, San
included in the	Sebastian.
Aguadilla CMSA:	

# Mayaguez

Municipios	Cabo Rojo, Hormigueros, Lajas, Mayaguez, Sabana Grande, San
included in the	German.
Mayaguez	
CMSA:	
Other municipios:	Las Marias, Maricao.

# Ponce

Municipios	Coamo, Guanica, Guayanilla, Juana Diaz, Penuelas, Ponce, Villalba,
included in the	Yauco.
Ponce CMSA:	
Other municipios:	Adjuntas, Santa Isabel.

# San Juan

Municipios	Aibonito, Aguas Buenas, Arecibo, Barceloneta, Barranquitas, Bayamon,
included in the	Caguas, Camuy, Canovanas, Carolina, Catano, Cayey, Ceiba, Ciales,
San Juan CMSA:	Cidra, Comerio, Corozal, Dorado, Fajardo, Florida, Guaynabo, Gurabo,
	Hatillo, Humacao, Juncos, Las Piedras, Loiza, Luquillo, Manati,
	Maunabo, Morovis, Naugabo, Naranjito, Orocovis, Quebradillas, Rio
	Grande, San Juan, San Lorenzo, Toa Alta, Toa Baja, Trujillo Alto, Vega
	Alta, Vega Baja, Yabucoa.
Other municipios:	Arroyo, Culebra, Guayama, Jayuya, Patillas, Salinas, Utuado, Vieques.

Virgin Islands Banking Markets

# St. Croix

Full County:	St. Croix.
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# St. John and St. Thomas

Full Counties:	St. John, St. Thomas.
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# **Appendix D: Previous Memos on Market Definition**

- D.1. Definition of Banking Markets in New Jersey and New York, by David Holdsworth, FRBNY.
- D.2. Definition of Banking Markets in Puerto Rico, by David Holdsworth.
- D.3. Third District Banking Markets 2003 Revision, by James DiSalvo.